



SALES MANAGEMENT

Software Requirement Specification

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1. INTRODUCTION

- **Name : Online Sales Management System (Selling Module)**
- **Description : Online Sales Management System (OSMS)** is an online system that help users, customers purchase their favorite items, product without going to stores, market ... **OSMS** also provides a diversity of payment method such as : cash, banking transaction, phone card. After ordering, product will be shipped to customer's address.

1.1 Purpose

- **Product's aim** : To help users approach a more convenient way to go shopping than traditional ways. Save an amount of money for users.
- **Function** :
 - Search products by name.
 - Show product information for users
 - Order products
 - Payment after ordering

1.2 Scope

- **Type** : Web - based application.
- **Language** : C#.
- **Framework** : .NET Framework
- **Objectives and benefits** : see part 1;

1.3 Definitions, Acronyms, and Abbreviation

I D	Acronym	Definition
1	SRS	Software Requirement Specification

2	App	Application
3	OSMS	Online Sales Management System (Software's name)
4	OS	Operating System
5	GUI	Graphic User Interface
6	CMS	Content Manager System
7	DB	Database

1.4 References

- SRS Template, SWE102 (Introduction to software engineering)

1.5 Overview

- This document provides the requirement specifications for the software about its functions, purposes ...

2. OVERALL DESCRIPTION

2.1 Product Perspectives

SM is for company which wants to automate its sales system.

SM is a web-based app. It should run on any OS with a web browser and Internet supported. This should be an automated modules in a larger sales system.

This app makes it easier for users to see products, add to cart, order and pay all online.



Figure 2-1: Module Overview Of SM

The module has 4 main functions:

- Search products by name.
- Order products
- Payment after ordering
- Update orders

2.2 Product Functions

8 Use cases:

1. Search by name
2. Show list of products
3. Add to cart
4. View cart : edit the amount or delete the product from your cart
5. Confirm buying
6. Choose form of payment

7. Update order status (paid or unpaid)
8. Update orders (delete, edit, update paying status)

2.3 User Requirements

- Be able to view all products and related information and add to cart easily
- Be able to choose to pay online or offline (after the product is delivered to them)
- Reliable and secure (private information and order details)
- Friendly and easy to use interface
- Get information about their orders and shipping status

2.4 User Characteristics

The system will have the following categories of the users:

- User: customers who go to the site to buy products
- Administrator: view order information and make direct changes to the database if necessary

1.1 Operating Environment

Software doesn't require any special characteristics of user. User just needs to have a browser with internet connected.

1.2 Assumptions and Dependencies

- Assumptions:
 - + Our module is part of a larger system so we would assume users are logged in and use our own product sets to test our system.
 - + Since the application is a web based application there is a need for the internet browser. It will be assumed that the users will possess decent internet connectivity.
 - + It's also assumed that users got used to online shopping systems and its basic procedures.
 - + There would be an intermediate agency (shipper) who takes care of checking shipping status from us (supplier) to customer (online shoppers who visit and order on the system).
- Dependencies:
 - + Users need to login to use the system
 - + There needs to be products available in stock.

1.3 Design and Implementation Constraints

- Access to the web is required.
- As for the developer constraints, the other module information was not available for security reasons. Many assumptions about the data have to be made.
- The learning curve was steep because we are learning about developing Web App with C#.Net at the same time with working on this module.

3. SPECIFIC REQUIREMENTS

3.1 Functionality

3.1.1 Use Case 1: Product Search

Use-case ID	UC001 By AnhPT	
Use-case Name	Product Search (by name)	
Actor	Customer	
Description	Customer searches a product by its name or part of its name in the search bar	
Precondition	No	
Trigger condition	No	
Post-condition	No	
Main flows (normal flows)		
Step	Actor	Action Description
1	Customer	Customer gets in the front page

2	Customer	Customer enters word(s) into search bar and press enter
3	Software	Software gets the entered words and searches in the database to get list of products
4	Software	Software displays the list of products with requested name on page

3.1.2 Use Case 2: Show List Product

Use-case ID		UC002 By AnhPT
Use-case Name		Show List Product
Actor		Software
Description		Auto load list of products and display on page when customers visit
Precondition		No
Trigger condition		Show list after doing product's name search
Post-condition		No
Main flows (normal flows)		
Step	Actor	Action Description
1	Customer	Customers load the index page
2	Software	Display screen with products having following info: - Product Name - Product Image - Product Price - Product Description

3.1.3 Use Case 3: Add to cart

Use-case ID		UC003 By PhongVH
Use-case Name		Add to cart
Actor		Customer
Description		Customer add new items to the cart
Precondition		Customer have chosen what item they want to buy
Trigger condition		Customer click on add button
Post-condition		Item which customer have added will be moved to view cart page
Main flows (normal flows)		
Step	Actor	Action Description
1	Customer	Customers choose items for shopping

2	Software	Go to item page with the following fields: - Picture of the item - Review - Cost - Choose amount of item - Add to cart button
3	Customer	Choose number of item they want to buy and kick add to cart button after that they have to choose view cart or payment

3.1.4 Use Case 4: View cart

Use-case ID		UC004 By PhongVH
Use-case Name		View cart
Actor		Customer
Description		Customer can view all the item they have bought and edit the cart like changing the amount of item or deleting them
Precondition		No
Trigger condition		Customer have to click on view cart button
Post-condition		Customer can add new item or move to complete order information page
Main flows (normal flows)		
Step	Actor	Action Description
1	Customer	Customer move to view cart page
2	Software	Display screen with the following fields: - Cart information: + Number of items + Item cost + Ship cost + Total cost + Payment button - Products: + Picture of the item + Change amount of item + Delete button
3	Customer	- Choose number of item they want to edit or choose item to delete - Click home button to continue shopping - Click payment button to pay

3.1.5 Use Case 5: Complete Order Information

Use-case ID	UC005 By Nguyen Gia Huy	
Use-case Name	Complete Order Information	
Actor	Customer, Software	
Description	The order details include products’ name, amount, total price from the shopping cart. The order page requires customer to choose shipping method or a method is selected by default. Customer’s information is required in order to complete the order’s information. Customer shall be able to cancel the order or edit order information.	
Precondition	Customer should choose their preferred shipping method or a method is selected by default. The shipping cost is added to the order’s price. Customer shall enter all the required information including customer’s name, contact information (email, phone number), and address for shipping. Customer shall check all the order details and click on the Proceed Payment button.	
Trigger condition	User click on Proceed Payment button	
Post-condition	Customer’s order information is saved to the database and the browser shall navigate to the Payment page.	
Main flows (normal flows)		
Step	Actor	Action Description
1	Customer	Customer should chooses shipping method (other than default selection).
2	Software	Shipping cost is added to the order’s price.
3	Customer	Customer enters all required information
4	Customer	Customer clicks on Proceed button.
5	Software	Order is saved to the database
6	Software	Browser navigates to Payment page.
Alternative flows		
Step	Actor	Action Description
1	Software	The information customer entered is invalid. Browser stays on Order page.
2	Customer	Customer enters correct information and clicks on Proceed button.
3	Software	Browser navigates to Payment page.
Business Rules	Customer must enter correct and reliable information for contact and shipping.	

3.1.6 Use Case 6: Payment

Use-case ID	UC006 By Nguyen Gia Huy	
Use-case Name	Payment	
Actor	Customer, Software	
Description	The Payment page requires customer to do 2 type of actions. First, customer shall choose their preferred shipping method. Second, customer shall choose their payment method from a list of type of payments (COD – cash on delivery, international credit cards, ATM or internet banking). Customer shall provide required information for the method they have chosen to start purchasing.	
Precondition	Customer shall choose their payment method from a list of type of payments (1- COD – cash on delivery, 2- international credit cards, 3 -ATM or internet banking). If customer chose the second and third payment method, they shall provide required information for payment first. Customer click on Purchase button to place order .	
Trigger condition	User click on Purchase button	
Post-condition	An invoice for second and third payment method is generated, saved and the order information is updated to the database. A message for transaction and the invoice is displayed to the customer.	
Main flows (normal flows)		
Step	Actor	Action Description
1	Customer	Customer choose their payment method <ul style="list-style-type: none">- First method: COD – cash on delivery- Second method: international credit cards (VISA, Mastercard, JCB)- Third method: domestic cards (ATM) or via internet banking.
2	Customer	Customer provide required information for credit card and banking
3	Customer	Customer clicks on Purchase button
4	Software	If customer chose second or third method, a message for successful money transferring is displayed and an invoice is generated and saved to the database.
5	Software	Order’s information is updated with type of payment method and payment status to the database.
Alternative flows (for the second and third payment method)		
Step	Actor	Action Description
1	Software	The information for credit card or bank account customer entered is invalid. An error message is displayed on the Payment page.
2	Customer	Customer enters correct information for the specified method and clicks on Purchase button.

3	Software	A message for successful money transferring is displayed and an invoice is generated and saved to the database.
4	Software	Order's information is updated with type of payment method and payment status to the database.
Exception 1		
Step	Actor	Action Description
1	Software	The money in customer's credit card or bank account is not enough. An error message is displayed on the Payment page.
2	Customer	Customer enters other valid credit card or bank account or choose another payment method for the specified method and clicks on Purchase button.
3	Customer	Do Normal Flow
Exception 2		
Step	Actor	Action Description
1	Customer	Customer clicks on Cancel button
2	Software	The order is removed from the database
3	Software	Browser navigates to Home page
Business Rules		<ul style="list-style-type: none"> - Customer must enter valid and reliable credit card's information and bank account for internet banking - The application must generate an invoice for the money transfer through credit cards and internet banking in successful situation, save and display back to the customer. - For COD – cash on delivery method, an invoice shall be generated and saved until the order is delivered to customer.

3.1.7 Use Case 7: Payment check

Use-case ID	UC007 By SonHLT	
Use-case Name	Payment check	
Actor	Admin	
Description	Admin checks the payment of the order and changes it if necessary	
Precondition	Admin logged in successfully to system	
Trigger condition	No	
Post-condition	Payment of the order is managed by admin	
Main flows (normal flows)		
Step	Actor	Action Description
1	Admin	Admin opens order information page

2	Software	Display screen with the following fields: - Order ID - Products - Total cost - Payment status (default : not paid yet)
3	Admin	Check the payment reports, change the status of the payment if the customer has paid before
4	Software	Update information about order and save to database

3.1.8 Use Case 8: Update Orders

Use-case ID		UC008 By MienNTH
Use-case Name		Update Orders
Actor		Admin
Description		Admin check if there is some updates (on paper) about order (paid, unpaid, orders edited, orders deleted) and update status of order in database
Precondition		Admin logged in successfully to system
Trigger condition		There's information from delivery department or shippers about the updated status of orders
Post-condition		Information about order is updated in database and displayed to customers
Main flows (normal flows)		
Step	Actor	Action Description
1	Admin	Admin opens order information page
2	Software	Display screen with the following fields: - Order ID - Products - Total cost - Payment status (default : not paid yet) - Edit button - Delete button
3	Admin	Edit any new information sent from intermediate agencies or user special requests and the system automatically makes updates to database
4	Software	Update information about order and save to database Display or notify users (in email) about any updated information)

3.2 Usability

3.2.1 Required training time

- For a normal user, specifically a customer shall use the system in no time as user follows the flow of the system.
- For a power user, he/she is required to hold a degree or certification in finance or banking.

3.2.2 Usability standard

- The system's GUI conforms to Microsoft's GUI standards.

3.2.3 Graphic User Interface

- The system shall provide image for each product in the product catalog.
- The system shall provide a uniform look and feel between all the web pages.

3.2.4 Accessibility

- The system shall provide multi language support.

3.3 Reliability

3.3.1 Response time

The maximum response time for the submission of a form request will be less than 1 minute.

3.3.2 Capacity

The maximum number of items per product is limited to 10 items for security and preventing fraud; there is no limit for the number of products per order.

3.3.3 Money Transfer

- All customer's credit card information or bank account shall not be saved for security.
- An invoice shall be generated and available to customer when money is successfully transferred.

3.4 Performance

The product shall be based on web and has to be run from a web server.

The product shall take initial load time depending on internet connection strength which also depends on the media from which the product is run.

The performance shall depend upon hardware components of the client/customer.

3.5 Supportability

- Web browser: Google Chrome, Microsoft Edge, Firefox, CocCoc
- Mobile: Android, iOS

3.6 Design Constraints

Language accepted : English (en).

Coding convention : Camel style.

Programming languages :

- C#
- Using .NET framework

Database to be used :

- MS SQL Server

Tools :

- MS Visual Studio
- MS SQL Server Management Studio

3.7 User Interfaces

The screenshot shows a web browser window titled "Mozilla" with the address bar displaying "http://moqups.com". The page content is for an "Online Sales Management System". At the top right, it says "Hello User" next to a user profile icon. Below this is a navigation bar with two tabs: "Search" (highlighted in grey) and "Order" (highlighted in orange). The main content area is titled "Search a product" and contains a form with the label "Enter product name here" and a search input field with a magnifying glass icon and the placeholder text "Search...". Below the input field is a yellow "Submit" button.

Figure 1 - Search Page

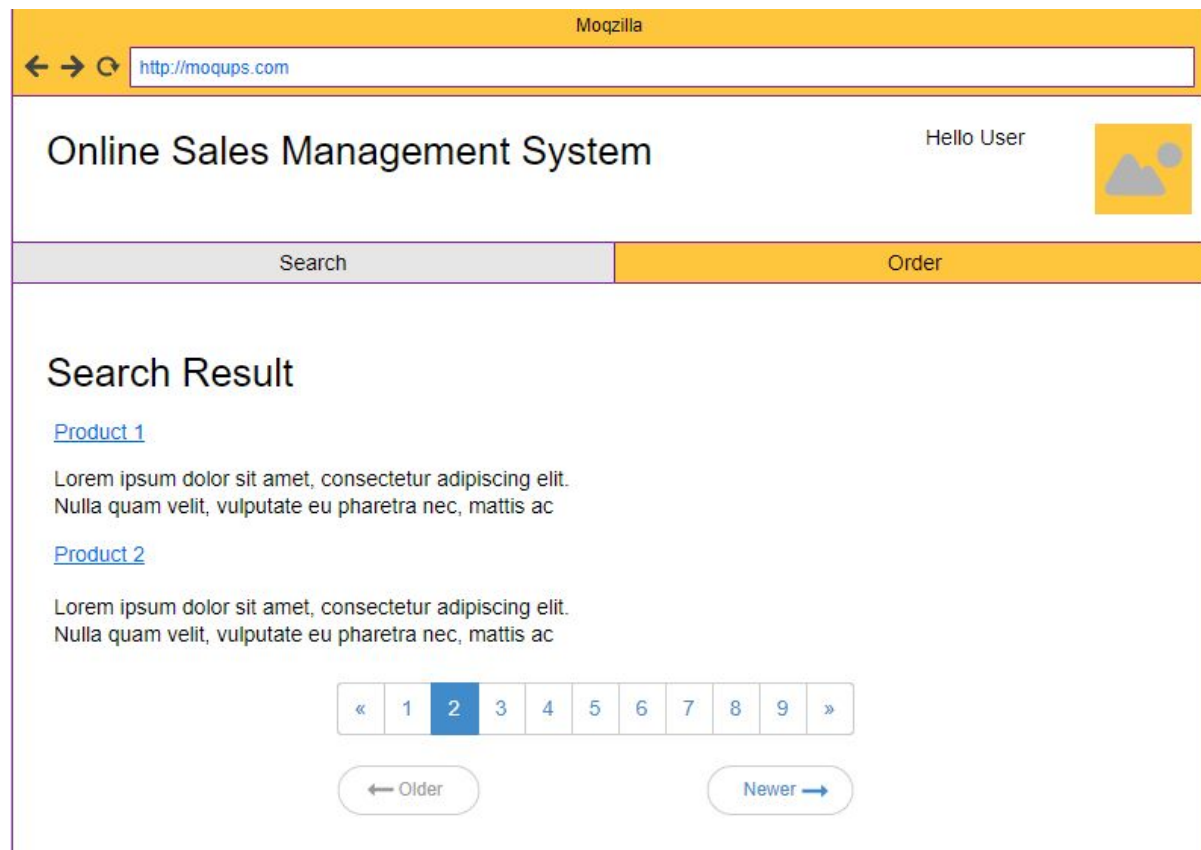


Figure 2 - Search Result

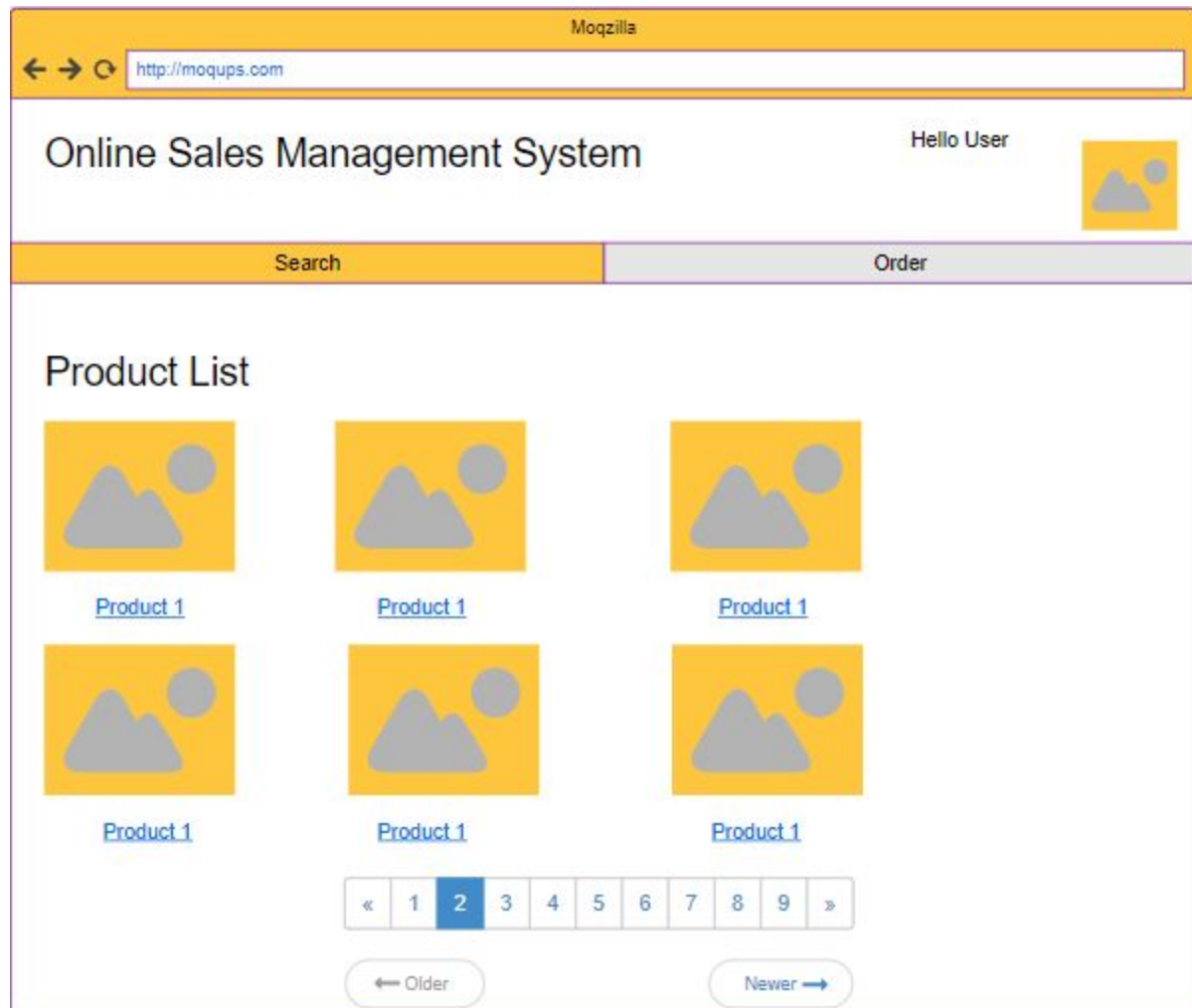


Figure 3 - Product list

Online Sales Management System

Hello User

Search Order

Payment Page

Products in your cart

ID	Product Name	On Sale
1	Product 2	<input checked="" type="checkbox"/>
2	Product 5	<input checked="" type="checkbox"/>
3	Product 8	<input checked="" type="checkbox"/>
4	Product 11	<input type="checkbox"/>

Choose payment method

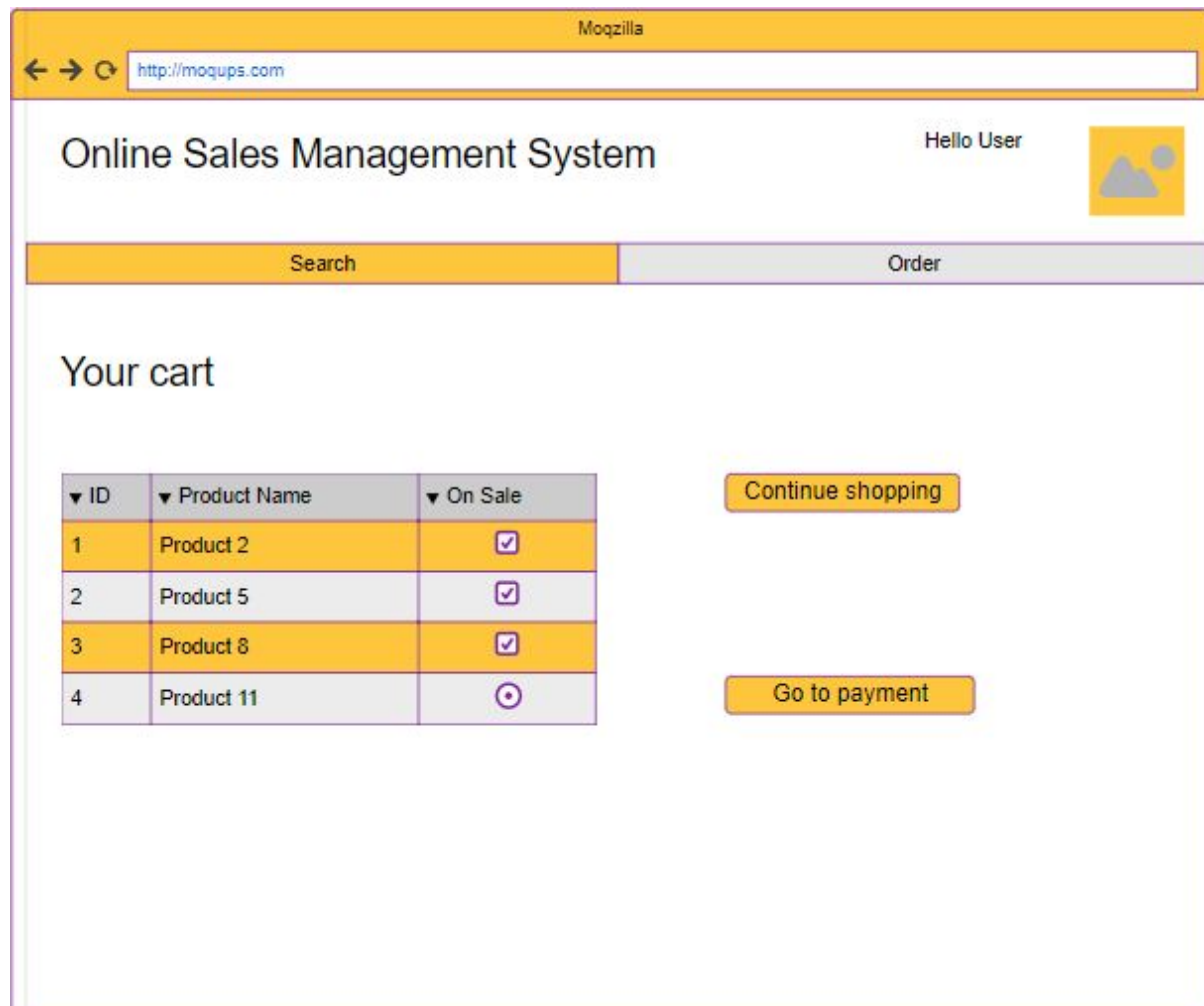
Banking Transaction

☐ Pay when receive product

☐ Pay right after ordering

Finish ordering

Figure 4 - Invoice

*Figure 5 - Finishing*

3.8 Hardware Interfaces

Since the application must run over the internet, all the hardware shall require to connect internet will be hardware interface for the system. As for e.g. Modem, WAN – LAN.

3.9 Software Interfaces

1. The SM module system shall communicate with MSSQL database to get all the products and orders information.
2. The SM module shall communicate Login, Import and Paying modules interface (done by other groups of SE1201).
3. The SM module shall communicate with billPay system to identify available payment methods , validate the payments and process payment.
4. The SM module system shall communicate with Sales system for order management.
5. The SM module system shall communicate with delivery system for tracking orders and updating of shipping methods.

3.10 Communications Interfaces

The SM will have a network server that is web-based and created using the C# language. The server exists to retrieve information from the database and shopping system. The product also calls for a database system that stores user's order information and transaction history.

Not Applicable

3.10.1 Licensing Requirements

Not Applicable

3.10.2 Legal, Copyright, and Other Notices

All proprietary trademarks, product names and/or logos used on SM web are trademarks of their respective owners.

3.10.3 Applicable Standards

It shall be as per the industry standard.

4. SUPPORTING INFORMATION

Appendix 1: Business Laws and Regulations

All transactions and behavior must follow the Law on Commerce of Vietnam
No.36/2005/QH11 and Decree No.52/2013/NĐ-CP About eCommerce